

Burrville Road Bridge
Spanning Toti Creek at Burrville Road
Recovery Township
Mercer County
Ohio

HAER No. OH-35

HAER
OHIO
54-FOR. N
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
MID-ATLANTIC REGION NATIONAL PARK SERVICE
DEPARTMENT OF THE INTERIOR
PHILADELPHIA, PENNSYLVANIA 19106

HISTORIC AMERICAN ENGINEERING RECORD

HAER
OHIO,
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BURRVILLE ROAD BRIDGE

HAER No. OH-35

Location: Spanning a branch of Toti Creek at Burrville Road (Township Route 33), 6.5 miles northeast of Fort Recovery, in Recovery Township, Mercer County, Ohio

UTM: 4.481.387 N., 692.706E
Quad: Coldwater, Ohio

Date of Construction: 1887. Repaired in 1910 and 1951

Present Owner: Mercer County
Mercer County Courthouse
Celina, Ohio 45822

Present Use: Vehicular and pedestrian bridge

Significance: The Burrville Road Bridge is one of seven selected Truss Leg Bedstead bridges in Ohio. It was fabricated and erected by the Bellefontaine Bridge and Iron Company of Bellefontaine, Ohio, a prolific builder of bridges throughout the region (ODOT, 1983).

Project Information: The Burrville Road Bridge will be moved to private property and replaced by Mercer County using Community Development Block Grant Funds. Mitigative documentation prepared by Warren C. High of Woolpert Consultants, Dayton, Ohio, June 1985

Transmitted by: Jean P. Yearby, HAER, 1985

The Burrville Road Bridge is located approximately 6.5 miles from historic Fort Recovery, in a rural setting in Mercer County, Ohio. The county proposes to move this bridge to private property for use near its original setting.

Prior to the fabrication and erection of this structure in 1887, it is unknown whether a wooden structure or ford was used to cross this branch of Toti Creek. An extensive search of county and historic society records has not provided any records as to the original cost, nor prior photographic documentation of the bridge. County records did reveal that the abutments were reinforced with concrete in 1910 and 1951. In addition, structural repairs to the Uo connections and the replacement of the bottom chord (LoLi) were performed in 1951.

The Burrville Road Bridge is a Truss Leg Bedstead style Pony Truss which spans 30 feet, is 16 feet, 10 inches wide and is comprised of three panels. The bridge is fabricated from wrought iron and steel. The end posts and top chord are comprised of channels with riveted plates which act in compression. Also, the endposts continue into the soil and act as piling to support the truss. The lower chord is comprised of angles and eye bars, the diagonals are eye bars and rods with turnbuckles, and the interior posts are channels and plats, all acting as tension members. All members are joined together by pins. The deck consists of a timber strip floor with an asphalt wearing surface and is supported by "1" beam joists and "I" beams. A lattice barrier extends the length of the bridge.

The Burrville Road Bridge was fabricated and built in 1887 by the Bellefountaine Bridge and Iron Company of Bellefountaine, Logan County, Ohio. This company began originally as the Buchanan Bridge Company which became incorporated in 1890. The name of this company was changed to the Bellefountaine Bridge and Iron Company in 1894. S. A. Buchanan began the company and specialized in patent wooden trusses and combination bridges (Lathrop, 1890). The offices were located on the second floor, Opera Block, Court Street Front (Lathrop, 1890).

Later documentation of the Bellefountaine Bridge and Iron Company shows the following people managed the company in 1902: T. F. Bushey, President and General Manager; Robert Colton, Vice President; P. E. Cory, Secretary and Treasurer; J. E. Miller, Engineer; and F. W. Fahlgren, Superintendent. It is unknown which personnel were involved with bridge design during the time of the Burrville Bridge.

REFERENCES

Lathrop, J. M., 1890. Atlas of Logan County, Ohio. O. J. Laked and Company.
Philadelphia.

Ohio Department of Transportation. 1983. The Ohio Historic Bridge Inventory
Evaluation, and Preservation Plan.

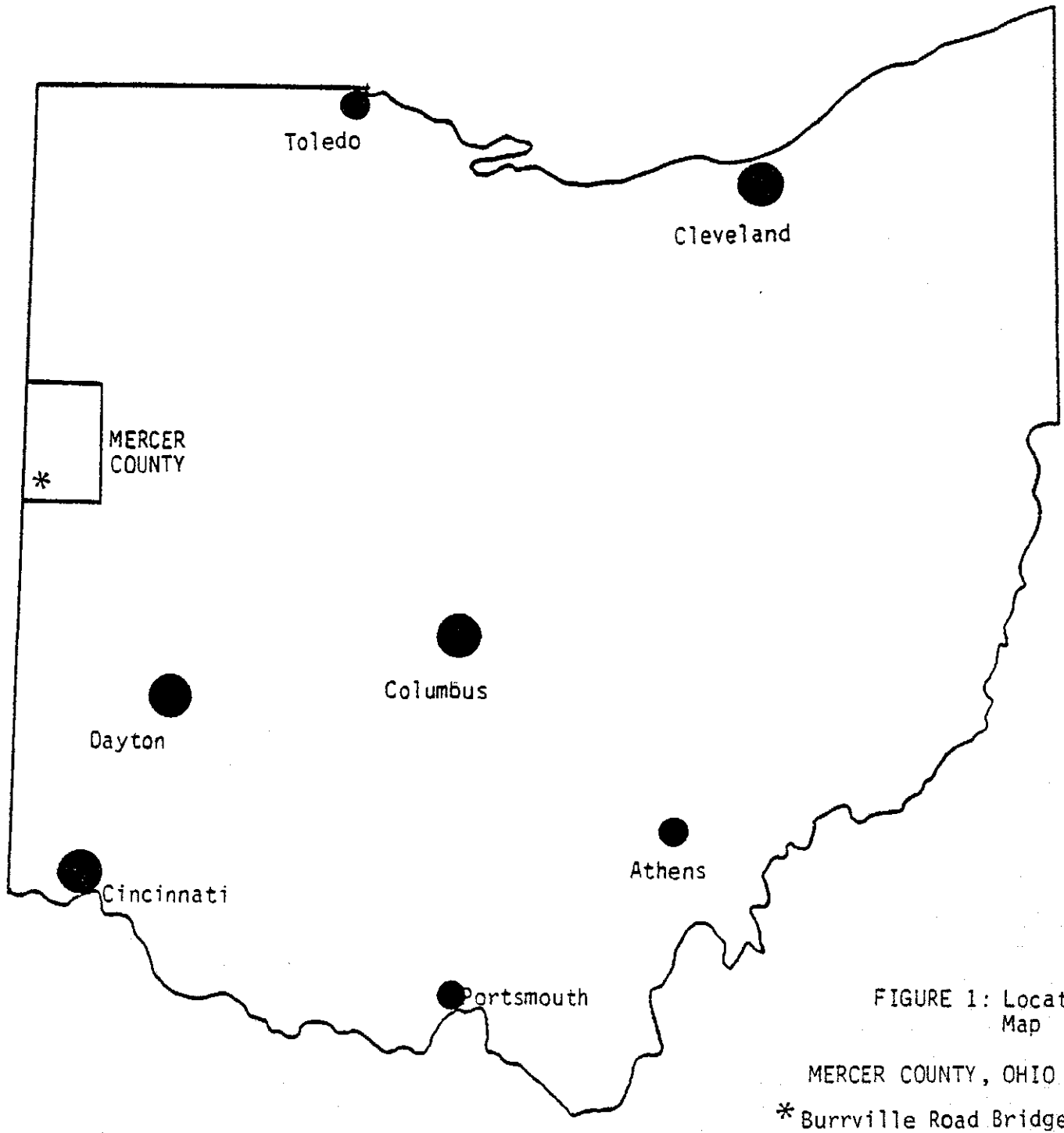


FIGURE 1: Location Map

MERCER COUNTY, OHIO

* Burrville Road Bridge



10 20 30 40

Scale

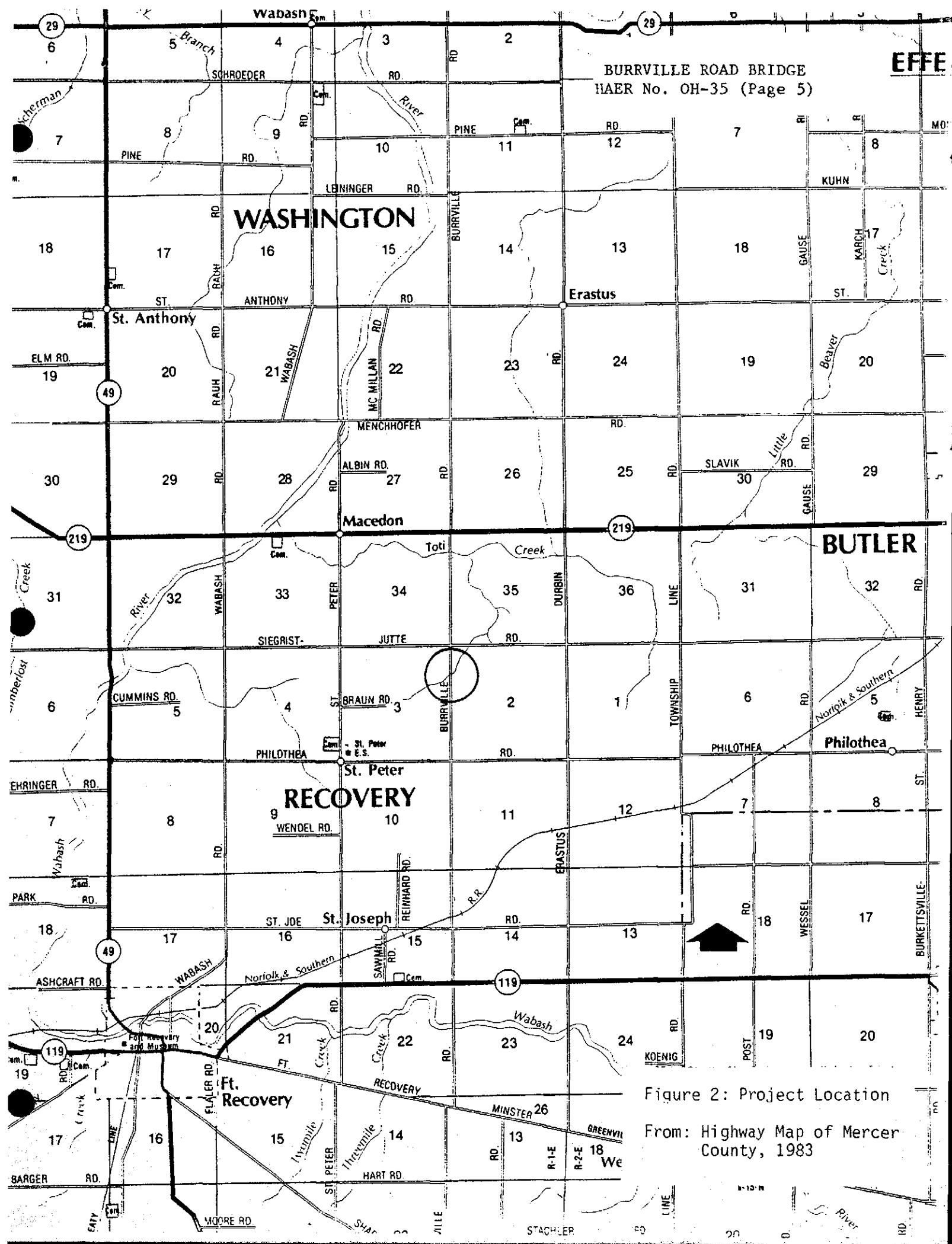
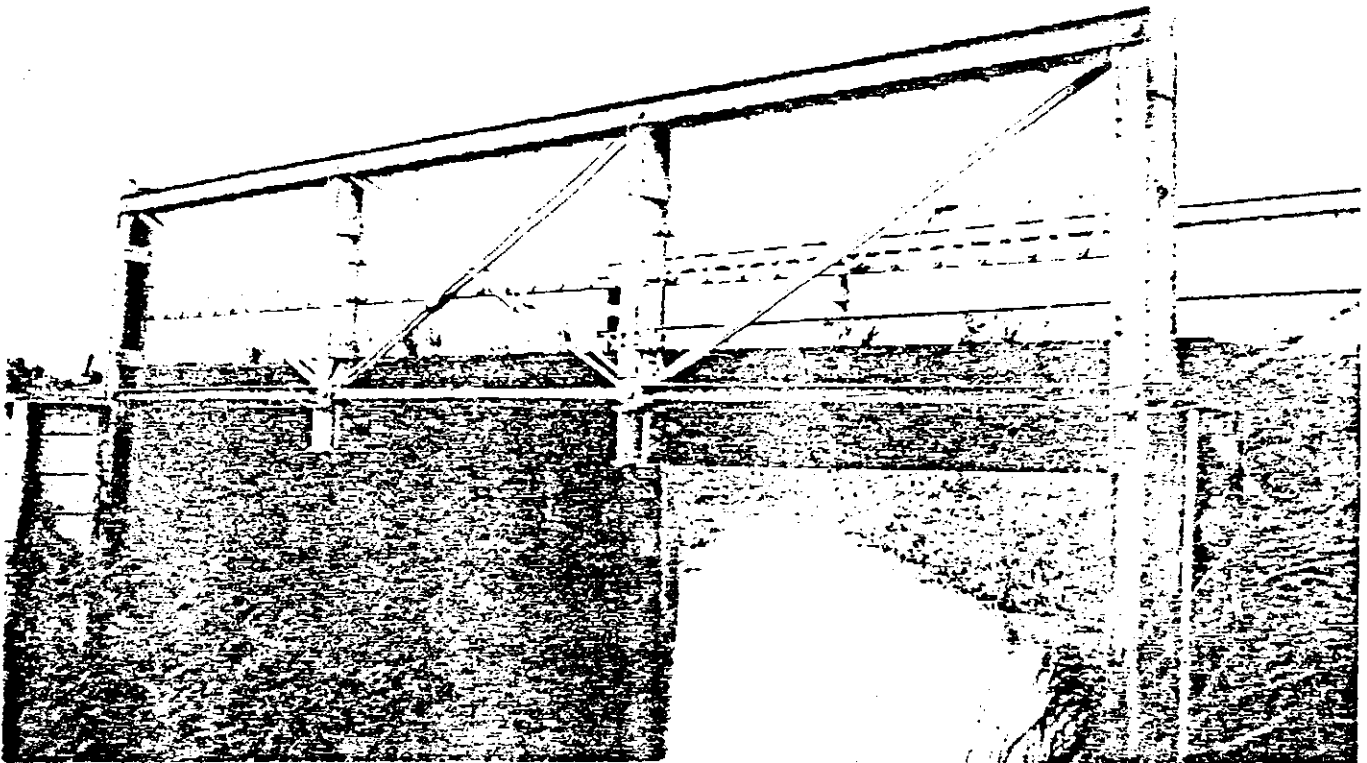


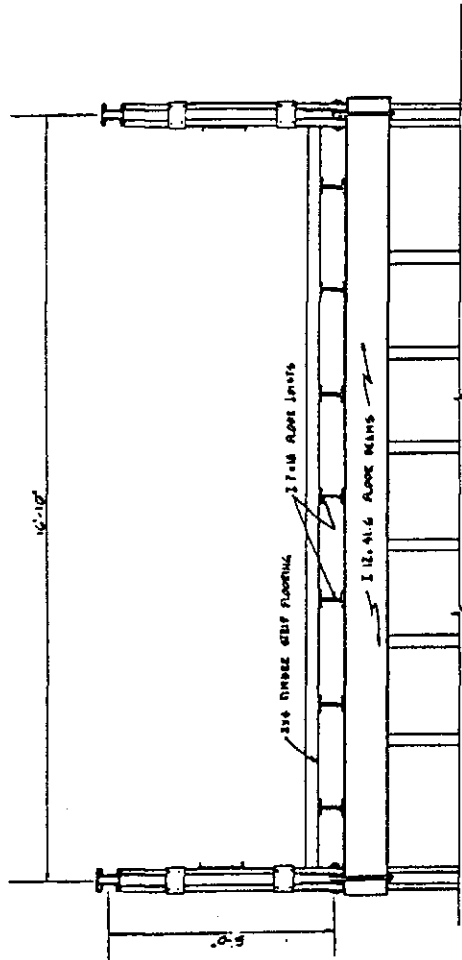
Figure 2: Project Location
From: Highway Map of Mercer
County, 1983



Mercer County
Township Route 33 (Burrville Road)
Crosses branch of Toti Creek
Located 6 miles northeast of Fort Recovery
Recovery Township—Border of Sections 2 and 3
Structure File No. 5451930
UTM Coordinates—17:692706/4481387

This single-span bridge was built in 1887 by the Bellefontaine Bridge and Iron Works. The truss leg bedstead has an overall length of 31 feet. A cross-rail extends the length of the span.

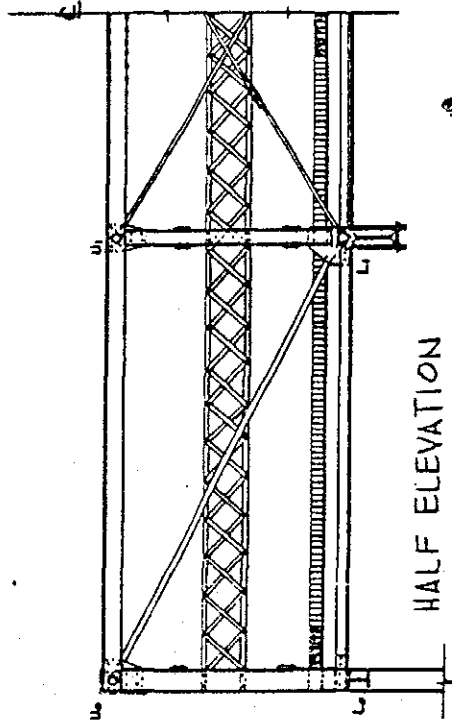
Figure 3. From The Ohio Historic Bridge Inventory Evaluation, and Preservation Plan, ODOT, 1983, Page 60.



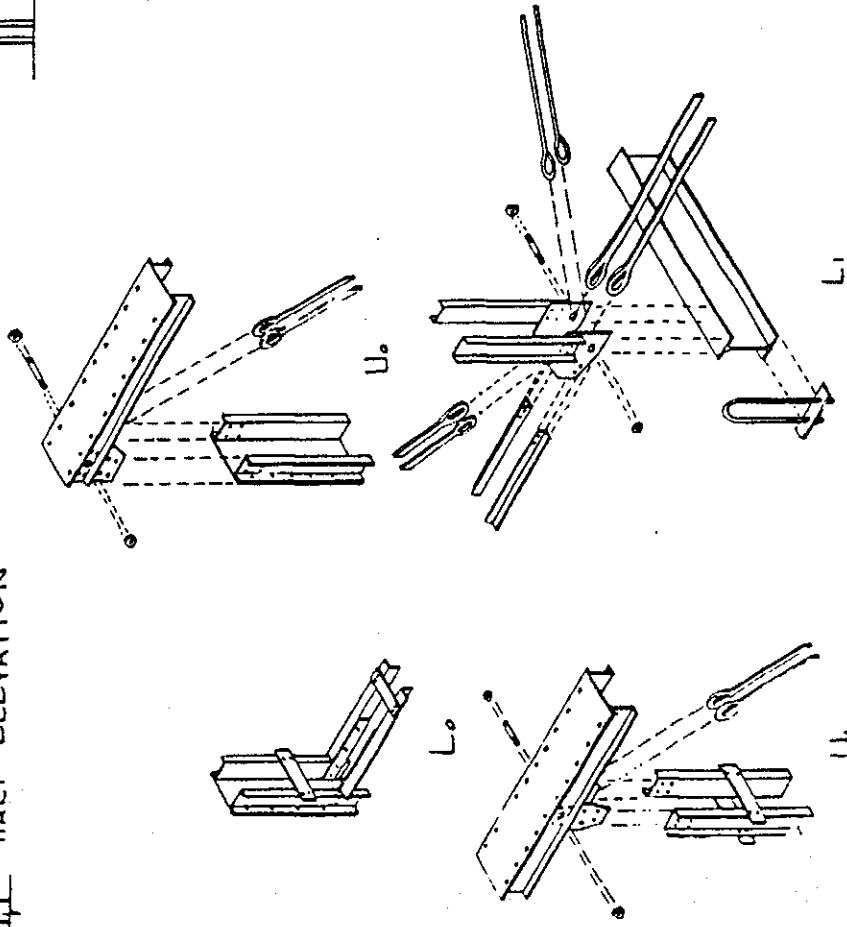
SECTION A-A

MEMBER LIST WROUGHT IRON

END POST: L₆L₆ (2) C.C. 8.2 w/10/16" x 1/2" E (13 CONTINUOUS IS PLING)
 TOP CHORD: U₆U₁ (2) C.C. 8.2 w/10/16" x 1/2" E
 U₁U₂ SAME
 LOWER CHORD: L₆L₁ (2) L35.248" x 1/2"
 L₁L₂ (2) 2" x 1/2" E
 DIAGONALS: U₆L₁ (2) 1 1/4" x 1/2" E
 U₁L₂ (2) 1 1/4" x 1/2" E
 L₁U₂ (2) 1 1/4" x 1/2" E
 PINS:
 U₆ 1 1/4" x 1/2" E
 L₁ 1 1/4" x 1/2" E
 U₁ 1 1/4" x 1/2" E

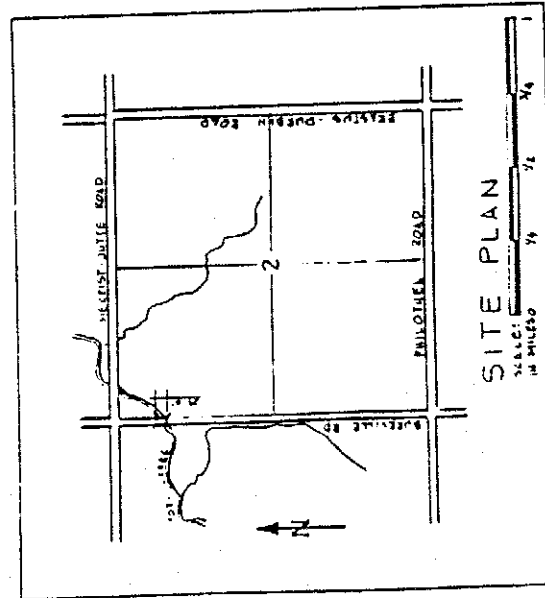


HALF ELEVATION



SHEET NO	BR 17.33 BURRVILLE ROAD
OVER TOTI CREEK	
SECTIONS 2+3 RECOVERY IMP	
T. 1.5, R. 1-E	
REVISIONS	LEITH G. EAPLEY, P.E., P.S.
DESIGNED BY	CHAS. E. EAPLEY, P.E., P.S.
CHECKED BY	CHAS. E. EAPLEY, P.E., P.S.
DATE	2.2.25
SCALE	1/4" = 1'-0"

BURRVILLE ROAD BRIDGE 1887 BELLEFOUNTAINE BRIDGE CO. MERCER COUNTY, OHIO

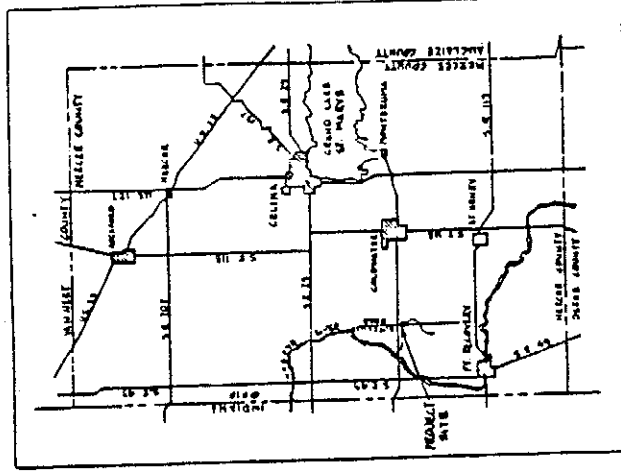
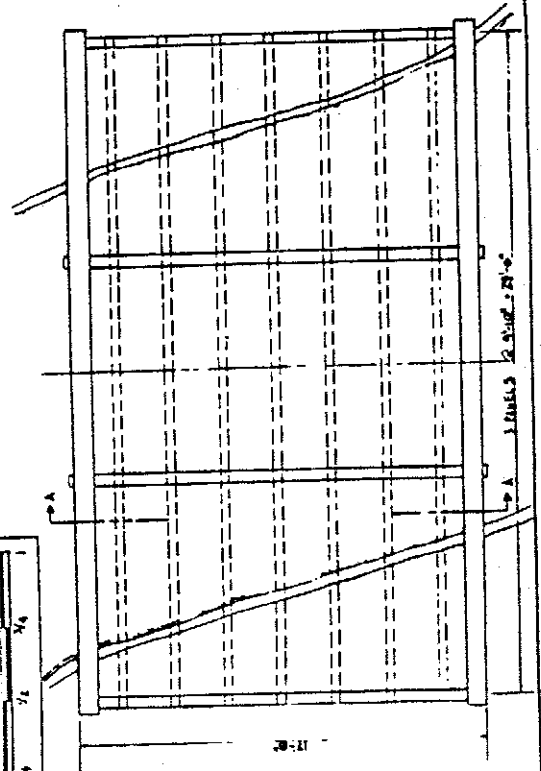


THE BURRVILLE ROAD BRIDGE IS A TRUSS LEG BEDSTEAD STYLE PONY TRUSS FABRICATED BY THE BELLEFOUNTAINE BRIDGE AND IRON WORKS OF BELLEFOUNTAINE, OHIO. THIS FABRICATOR ERECTED MANY SIMILAR STRUCTURES THROUGHOUT THE MIDWESTERN UNITED STATES DURING THE LATTER PART OF THE NINETEENTH CENTURY AND THE EARLY TWENTIETH CENTURY. MERCER COUNTY, OHIO WAS SETTLED IN THE EARLY NINETEENTH CENTURY AS THE STATE OF OHIO GREW AND THE DEMAND FOR AGRICULTURAL LAND INCREASED.

IT IS UNKNOWN WHETHER A PRIOR BRIDGE EXISTED AT THIS SITE OR THE STREAM WAS SIMPLY FORDED.

THE ORIGINAL STRUCTURE WAS REPAIRED C. 1910 BY CASTING THE STEEL JOINTS IN CONCRETE AND REPAIRED AGAIN IN A SIMILAR FASHION ON THE SOUTH ABUTMENT IN 1951. STRUCTURAL REPAIRS TO THE JOINT CONNECTIONS WERE ALSO MADE IN 1951. THE BOTTOM CHORD L-1 WAS REPLACED PROBABLY AT THE SAME TIME.

BELLEFOUNTAINE BRIDGE AND IRON WORKS BEGAN AT THE BUCHANAN BRIDGE CO. IT CHANGED ITS NAME IN 1894. BRIDGES MANUFACTURED BY THE COMPANY WERE SHIPPED AS FAR AWAY AS OKLAHOMA AND NEVADA.



PLAN
 TRUSS LEG BEDSTEAD
 PONY TRUSS

SCALE: 1" = 100' FT

SHEET NO.	BR 87-133 BURRVILLE ROAD	
	OVER TOTI CREEK	
REVISIONS	SECTIONS 2 & 3 RECOVERY TWP	
	T-7.5, R-1-E	
DESIGN	KEITH C. EARLEY, P.E., P.S.	
	COUNTY ENGINEER	
DATE	MERCER COUNTY, OHIO	
	DATE 5/10/82 DATE 7/13/85	